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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,982	02/24/2004	Johan van de Groenendaal	063170.7185	4521
5073 7590 04/30/2009 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980				
EXAMINER				
CHO, UN C				
ART UNIT		PAPER NUMBER		
2617				
NOTIFICATION DATE		DELIVERY MODE		
04/30/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary****Application No.**

10/786,982

**Applicant(s)**

GROENENDAAL ET AL.

**Examiner**

UN C. CHO

**Art Unit**

2617

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-7,9-15,19-24 and 28-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5-7,9-15,34,35 and 38-41 is/are allowed.
- 6) ☒ Claim(s) 19-24,28-33,36,37 and 42-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-949)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/2009 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19 – 24, 28, 30 – 33, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al. (US 7,295,524 B1) in view of Karaoguz (US 7,289,813 B2).

Regarding claim 19, Gray discloses discovering one or more mobile devices connected to a wireless network (airspace management platform 56 gathers wireless traffic data collected by a wireless access point; Col. 5, lines 10 – 16); collecting association information from a plurality of access points by querying the plurality of access points for the association information (the airspace management platform 56

collects association information from wireless access points regularly, intermittently or on-demand; Col. 5, lines 31 – 48), the association information from an access point comprising information identifying a current association between the access point and an associated one of the one or more mobile devices (Fig. 2 shows an overview of the wireless access points and Fig. 3 shows a detailed view of a desired wireless access point including the users currently associated with a wireless access point; Col. 7, lines 4 – 12).

However, Gray does not specifically disclose providing a dynamic topographical visualization of associations between the access points and corresponding associated mobile devices. In an analogous art, Karaoguz discloses a dynamic topographical visualization (Fig. 7b, element 730 provides pointers indicating the geographic location of each device) of associations between the access points (the locator is positioned at the center surrounded by devices 1 – 5) and corresponding associated mobile devices (Fig. 7b, elements 1 – 5) (Col. 8, line 59 through Col. 9, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the visualization technique of Karaoguz to the system of Gray in order to provide a user-friendly method of detecting and visualizing available mobile devices within a geographic area.

Regarding claim 20, Gray discloses tracking a mobile device connected to the wireless network by using the collected association information (Fig. 3).

Regarding claim 21, Gray discloses generating mobility information by consolidating the collected association information and resolving any conflicts in the

collected information (data generated during the scan is summarized and sent to the aerospace management platform for further analysis; Col. 10, line 50 through Col. 11, line 5); and logging the resolved mobility information (aerospace management platform builds a history record or a rogue master record accordingly; Col. 11, line 57 through Col. 12, line 5).

Regarding claim 22, Gray discloses detecting one or more unauthorized rogue mobile devices connected to the wireless network (Col. 10, lines 50 – 57).

Regarding claim 23, Gray discloses detecting one or more unauthorized access points (Col. 10, lines 50 – 57).

Regarding claim 24, Gray discloses further comprising detecting one or more disassociated mobile devices (the aerospace management platform analyzes the data collected by the scanning agent, wherein the data includes information regarding registered/authorized wireless devices and rogue/non-registered devices; Col. 10, line 50 through Col. 11, line 5).

Regarding claims 28, 36 and 37, the claims are interpreted and rejected for the same reason as set forth in claim 19.

Regarding claim 30, Gray discloses wherein the device agent is operable to poll regularly the corresponding set of access points to determine changes to associations of the access points (the aerospace management platform 56 collects association information from wireless access points regularly, intermittently or on-demand; Col. 5, lines 31 – 48).

Regarding claim 31, Gray discloses wherein the device agent queries the corresponding set of access points to request association information from the access points (the airspace management platform 56 collects association information from wireless access points regularly, intermittently or on-demand; Col. 5, lines 31 – 48)).

Regarding claim 32, Gray discloses wherein the device manager consolidates the collected information and resolves any conflicts in the collected information (data generated during the scan is summarized and sent to the aerospace management platform for further analysis; Col. 10, line 50 through Col. 11, line 5).

Regarding claim 33, Gray discloses wherein the association information from the access point is retrieved from an association table maintained by the access point (Fig. 8; Col. 9, line 58 through Col. 10, line 23).

4. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Karaoguz as applied to claim 28 above, and further in view of Gerth et al. (US 6,370,373 B1).

Regarding claim 29, the combination of Gray and Karaoguz does not specifically disclose wherein the device manager is operable to assign the access points to the plurality of device agents to balance a workload access the device agents. In an analogous art, Gerth discloses wherein the device manager (PSMS; Fig. 2, element 202) is operable to assign the access points (MSC; Fig. 2, elements 120A, 120B ... 120G) to the plurality of device agents (RVCD; Fig. 2, elements 204A and 204B) to balance a workload across the device agents (RVCDs are assigned a number of MSCs

each to balance a workload; Col. 3, line 62 through Col. 4, line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Gerth to the modified system of Gray and Karaoguz in order to provide an efficient system and method for proactively detecting cloning fraud in a cellular environment and expanding the detection coverage area with the use of multiple RVCD.

5. Claims 42 – 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Karaoguz as applied to claim 19 above, and further in view of Broyles et al. (US 7,142,868 B1).

Regarding claim 42, the combination of Gray and Karaoguz does not specifically disclose a projected future view of the associations between the access points and the corresponding associated wireless devices. In an analogous art, Broyles discloses a projected future view of the associations between the access points and the corresponding associated wireless devices (displaying a graphical representation of future network configuration; Col. 5, lines 18 – 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Broyles to the modified system of Gray and Karaoguz in order to provide a system and method of predicting and displaying wireless network communication system traffic.

Regarding claims 43, 44 and 45, the claims are interpreted and rejected for the same reasons as set forth in claim 42.

***Allowable Subject Matter***

6. Claims 1 – 3, 5 – 7, 9 – 15, 34, 35 and 38 – 41 are allowed.
7. The following is an examiner's statement of reasons for allowance:

Applicant's invention is drawn mobility management tools for monitoring and managing a wireless network and/or for tracking and managing mobile devices in the wireless network.

Applicant's independent claim 1 recites, *inter alia*, a system for tracking and managing mobile devices in a wireless network with a structure as defined in the specification (pages 11 – 25) including a device manager operable to receive the collected association information from the device agents, the device manager comprising a conflict resolution engine for resolving conflicting access point associations, the conflicting access point associations comprising two or more currently indicated associations of one and only one of the one or more mobile devices with respective two or more access points, the conflict resolution engine resolving the conflicting access point associations by identifying a single one of the two or more access points as being actually associated with the one and only one of the one or more mobile devices and identifying any others of the two or more access points as being disassociated with the one and only one of the one or more mobile devices. Applicant's independent claim 1 comprises a particular combination of elements, which is neither taught nor suggested by the prior art.

Claims 14, 34 and 35 are interpreted and allowed for the same reason as set forth above.



Accordingly, applicant's claims are allowed for these reasons and for the reasons recited by applicant in the amendment filed on 2/17/2009.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 19 – 24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to UN C. CHO whose telephone number is (571)272-7919. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Un C Cho/  
Examiner, Art Unit 2617